Business Skills - Ansible Configuration Management Boot Camp

Code:	ANS-CON-MAN-BC
Length:	2 days
URL:	View Online

Learn to put the world's simplest IT automation platform to work in your own organization. Ansible is a radically simple IT automation engine that automates cloud provisioning, configuration management, application deployment, intra-service orchestration, and many other IT needs. Designed for multi-tier deployments since day one, Ansible models your IT infrastructure by describing how all of your systems inter-relate, rather than just managing one system at a time. It uses no agents and no additional custom security infrastructure, so it's easy to deploy — and most importantly, it uses a very simple language (YAML, in the form of Ansible Playbooks) that allow you to describe your automation jobs in a way that approaches plain English. This course demonstrates the flexibility and power of the Ansible configuration management system, and how it can be used to build and scale highly reliable infrastructure for your own environments and projects. Using real world examples, we demonstrate how Ansible can be used to manage environments as small as a couple of servers, or for massively distributed infrastructure that spans the globe — all with the same simple syntax. By the end of this course you will have a solid understanding and hands-on experience building reliable and easily reproducible infrastructure using Ansible, and the knowledge to integrate Ansible into your operations workflow. Our continuous hands-on lab classroom format and real-world practice scenarios cement your new skills with Ansible's tools and leave you prepared to begin taking advantage of radically simple configuration management.

Who Can Benefit

- IT Managers and Leaders
- Developers and Application Teams
- System Administrators
- IT Operations Staff
- Release Engineers
- Configuration Managers
- Anyone involved with IT infrastructure
- ScrumMasters
- Software Managers and Team Leads

Course Details

Bonus Materials

The workshop includes one of the only comprehensive books available on Ansible.This class includes a free copy of Ansible: Up & Running by Lorin Hochstein. This text from O'Reilly, plus your classroom guide, will serve as invaluable references for you to use back at work.

1. Introduction

- Why configuration management is a critical part of any DevOps team

- Strengths and weaknesses of Ansible
- Web scale
- How Ansible is different from other CM tools like Chef and Puppet
- Getting started with Ansible terminology
- Ansible and YML for describing your environments

2. Getting set up

Hands-on Practice Lab: Install Ansible and test connectivity to your test nodes.

- Some prerequisites
- Getting set up on a Mac
- Getting set up on Linux
- Getting set up on Windows
- Testing with Vagrant
- Using SSH keys to connect to your target nodes

3. Inventory

Hands-on Practice Lab: Create an inventory file that defines four hosts, two web servers and two database servers, and assign these hosts to groups that describe their function.

- Basic inventory example
- Hosts and groups

4. Ansible Playbooks

Hands-on Practice Lab: Create a playbook to install and configure openssh-server on all nodes and make sure it is running.

- A useful directory structure to keep your Ansible code organized
- Using git to manage your Ansible code
- A first look at a playbook to install and configure NTP time synchronization

5. Provisioners

Hands-on Practice Lab: Refactor your inventory so that your staging environment is local using Vagrant, and your production environment is built on DigitalOcean.

- Connecting Ansible to your preferred cloud provider (we'll use DigitalOcean)
- Creating a new server instance
- Dynamic inventory
- Dynamic inventory on Amazon AWS
- Mixing static and dynamic inventory

6. Highly available infrastructure with Ansible

Hands-on Practice Lab: Build the sample infrastructure on your local Vagrant environment.

- Spec up our inventory and host groups
- Using roles

- Configure our database backend
- Configure our web server front-end
- Configure a replicated filesystem
- Configure centralized logging

7. Application deployments with Ansible

Hands-on Practice Lab: Proceed with deploying our application on your local Vagrant environment.

- Deploying our app from SCM to our local Vagrant environment
- How we would deploy that code to production once tested by QA
- Updating our application
- How Ansible compares to alternatives such as Capistrano

8. Docker containers with Ansible

Hands-on Practice Lab: Adapt your infrastructure to deploy our sample app using Docker.

- Brief intro to Docker
- The synergy of containerization and automation
- Using Ansible to build Docker containers
- MySQL containers
- Web application containers
- Data storage containers

9. Testing and continuous integration

Hands-on Practice Lab: Create some tests for our SSH playbook to make sure there are no syntax errors and that Ansible is configuring nodes as expected.

- Unit, integration and functional testing
- Automating your testing using GitHub and Travis CI

10. Preparing for Ansible back at work

Exercise: Your to-do list

- Real-world use case: Using Ansible to automate CM and application pipelines through continuous integration, release, deployment and operations
- We'll review your own environments and processes and evaluate how to best integrate Ansible's configuration management for your own needs

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Schedule (as of September 22 2018)

Date	Location		
Sep 24, 2018 – Sep 25, 2018	Virtual	GTR	Enroll
Oct 22, 2018 – Oct 23, 2018	Virtual	GTR	Enroll

Oct 22, 2018 – Oct 23, 2018	Indianapolis	Enroll
Nov 26, 2018 – Nov 27, 2018	San Diego	Enroll
Nov 26, 2018 – Nov 27, 2018	Virtual	Enroll
Dec 17, 2018 – Dec 18, 2018	Washington	Enroll
Dec 17, 2018 – Dec 18, 2018	Virtual	Enroll

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